

Notice of Allowability

Application No.

10/619,315

Examiner

Laura S. Weiner

Applicant(s)

UKAI ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 7-14-03.
2. ☒ The allowed claim(s) is/are 1-27.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 7-03; 9-05
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

Claims 1-27 are allowable over the prior art of record because no reference was found teaching a solid oxide fuel cell comprising a fuel electrode comprised of a cermet of a catalyst and a second solid electrolyte and the surface being coated with a fuel electrode contact layer comprising a fuel electrode material containing metal particles; an air electrode comprised of a compound of perovskite type transition metal oxide with a third solid electrolyte and the surface is coated with an air electrode contact layer comprising an air electrode contact material containing a material of which electric conductivity in a temperature region for power generation is higher than electric conductivity of an air electrode material and a first solid electrolyte between the fuel electrode and the air electrode.

Ishii et al. (JP 06-107462) teaches in Figure 3, an air electrode comprising $\text{La}_{0.60}\text{Sr}_{0.40}\text{MnO}_3$; an electrolyte comprising 0.88ZrO_2 - $0.115\text{Sc}_2\text{O}_3$ - $0.005\text{Al}_2\text{O}_3$ and a fuel electrode having a Ni-ZrO_2 layer covered with LaCrO_3 .

Hara et al. (6,849,354) teaches a solid oxide fuel cell (SOFC) containing a first solid electrolyte layer of LaGa-based perovskite, an air electrode, a fuel electrode and a second solid electrolyte layer which is provided between the first solid electrolyte layer and the air electrode and a third solid electrolyte layer provided between the first solid electrolyte layer and a fuel electrode.

Shibata et al. (6,893,760) teaches a fuel cell comprising an air electrode and a fuel electrode in which each includes two layers. Shibata et al. teaches in column 11,

Art Unit: 1745

Example 1, a fuel cell comprising an air electrode 20A composed of the adhering cathode layer 21A **[Ag]** and the electricity collecting cathode layer 22A **[Ag paste containing Ag particles]** formed on one surface of the solid electrolyte layer 10A **[YSZ]** and the fuel electrode 30A composed of the adhering anode layer 31A **[Ni]** and the electricity collecting anode layer 32A **[Ni paste containing Ni particles]** which is formed on the other surface of the solid electrolyte layer.

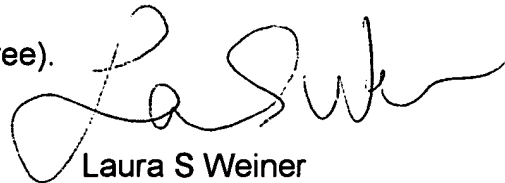
Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura S. Weiner whose telephone number is 571-272-1294. The examiner can normally be reached on M-F (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Ryan can be reached on 571-272-1292. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1745

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'LaS Weiner', is positioned above the printed name and title.

Laura S Weiner
Primary Examiner
Art Unit 1745

April 24, 2006